

AMENDMENTS TO THE CLAIMS

Claim 1 (currently amended): A method of reducing nephrotoxicity in an individual during radioimmunotherapeutic treatment of a pathophysiological condition, comprising:

administering a pharmacologically effective dose of a competitive metal blocker consisting of bismuth subnitrate or bismuth subcitrate ~~alone or said competitive metal blocker~~ in combination with ~~one or both of~~ a chelator(s) [[or]] and a diuretic(s);

administering a [[n]] chelated actinium-225 radioimmunoconjugate to treat the pathophysiological condition; and

preventing accumulation of francium-221 and bismuth-213 ~~said alpha particle-emitting daughters of said actinium-225~~ within the kidneys of the individual via interaction between ~~one or more of~~ said competitive metal blocker, [[or]] said chelator [[or]] and said diuretic and said francium-221 and bismuth-213 ²²⁵Ac ~~daughters~~ or the kidney tissue or a combination thereof thereby reducing nephrotoxicity during the radioimmunotherapeutic treatment.

Claim 2 (previously presented): The method of claim 1, wherein one or more of said competitive metal blocker, said chelator or said diuretic is administered prior to administering said actinium-225 radioimmunoconjugate, one or more of said competitive metal blocker, said chelator or said diuretic continuing to be administered after said actinium-225 radioimmunoconjugate.

Claim 3 (canceled).

Claim 4 (previously presented): The method of claim 1, wherein said chelator is a dithiol chelating agent, 2,3 dimercapto-1-propane sulfonic acid, meso 2,3-dimercapto succinic acid, diethylenetriamine pentaacetic acid, calcium diethylenetriamine pentaacetic acid, or zinc diethylenetriamine pentaacetic acid

Claim 5 (previously presented): The method of claim 1, wherein said diuretic is furosemide, chlorthiazide, hydrochlorothiazide or bumex.

Claims 6-7 (canceled).

Claim 8 (original): The method of claim 1, wherein said actinium-225 radioimmunoconjugate comprises an actinium-225 bifunctional chelant and a monoclonal antibody.

Claim 9 (original): The method of claim 8, wherein said actinium-225 radioimmunoconjugate is [²²⁵Ac] DOTA-HuM195.

Claim 10 (original): The method of claim 1, wherein said pathophysiological condition is a cancer or an autoimmune disorder.

Claim 11 (original): The method of claim 1, wherein said cancer is a solid cancer, a disseminated cancer or a micrometastatic cancer.

Claim 12 (original): The method of claim 11, wherein said cancer is myeloid leukemia.

Claims 13-31 (canceled).

Claim 32 (currently amended): ~~[[A]] The method of improving radioimmunotherapeutic treatment of cancer in an individual, comprising: claim 1, wherein the pathophysiological condition is a cancer and wherein administering a pharmacologically effective dose of a diuretic and a chelator; administering an actinium-225 radioimmunoconjugate; and~~

scavenging bismuth-213 ~~daughters of the actinium-225~~ and inhibiting renal uptake of francium-211 ~~daughters of the actinium-225 with said diuretic and said chelator to reduce nephrotoxicity in the individual during the treatment, thereby increasing~~ increases the therapeutic index of the actinium-225 ~~to improve~~ thereby improving the cancer treatment ~~for said cancer.~~

Claims 33-48 (canceled).

Claim 49 (currently amended): A method of increasing the therapeutic index of a ~~[[n[[chelated actinium-225 radioimmunoconjugate during treatment of a pathophysiological condition in an individual comprising:~~

~~inhibiting renal uptake of at least one alpha particle emitting daughter of actinium-225 francium-221 and bismuth-213 comprising:~~

~~administering a pharmacologically effective amount of one or both of a diuretic or a competitive metal blocker consisting of bismuth subnitrate or bismuth subcitrate or one or both of said diuretic or said competitive metal blocker in combination with a diuretic and a chelator, whereby such that nephrotoxicity is reduced during the treatment due to prevention of accumulation of daughters of said actinium-225, thereby increasing the therapeutic index of said chelated actinium-225 radioimmunoconjugate.~~

Claim 50 (canceled).

Claim 51 (previously presented): The method of claim 49, wherein said chelator and/or said diuretic and/or said competitive metal blocker are administered prior to treatment with said actinium-225 radioimmunoconjugate, said chelator and/or said diuretic continuing to be administered after said actinium-225 radioimmunoconjugate is administered to the individual.

Claim 52 (previously presented): The method of claim 49, wherein said chelator is a dithiol chelating agent, 2,3 dimercapto-1-propane sulfonic acid, meso 2,3-

dimercapto succinic acid, diethylenetriamine pentaacetic acid, calcium diethylenetriamine pentaacetic acid, or zinc diethylenetriamine pentaacetic acid

Claim 53 (previously presented): The method of claim 49, wherein said diuretic is furosemide, chlorthiazide, hydrochlorothiazide or bumex.

Claims 54-57 (canceled).

Claim 58 (original): The method of claim 49, wherein said actinium-225 radioimmunoconjugate is [²²⁵Ac] DOTA-HuM195.

Claim 59 (original): The method of claim 49, wherein said pathophysiological condition is a cancer or an autoimmune disorder.

Claim 60 (original): The method of claim 59, wherein said cancer is a solid cancer, a disseminated cancer or a micrometastatic cancer.

Claim 61 (original): The method of claim 60, wherein said cancer is myeloid leukemia.